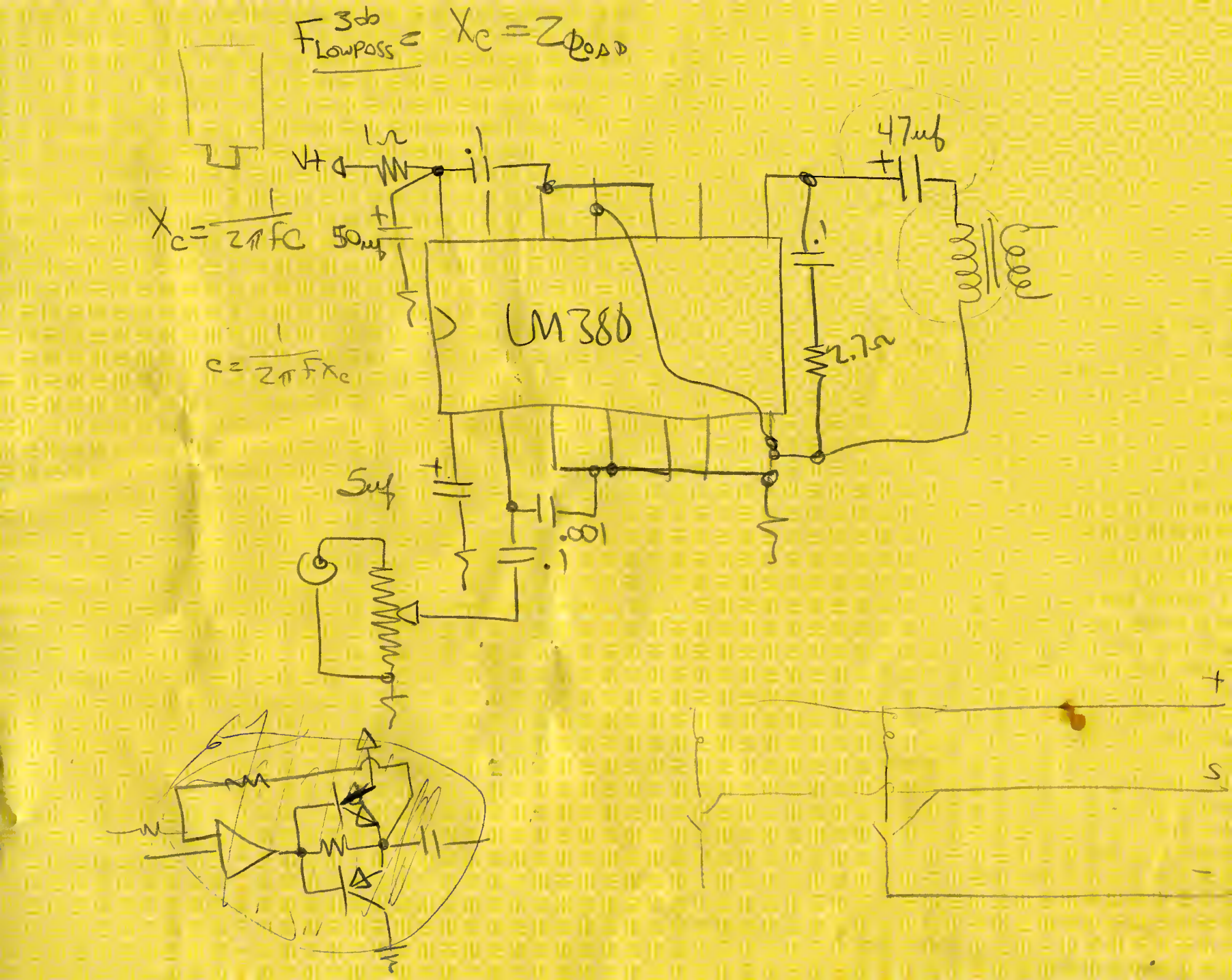
$F_{Lowpass}^{3db} = X_C = Z_{load}$



$X_C = \frac{1}{2\pi fC}$

$C = \frac{1}{2\pi F X_C}$